

Claims

[c1] What is claimed is:

A stationary rowing, exercise machine comprising;
a full set of actual rigging components from a typical single rowing shell, with a modified foot stop;
a main frame tube 2" x 4"x 8' long;
a pair of forks located each end stern and bow, protruding up and out from center at 50 degree angles;
700 cm wheels (27 diameter) mounted on the forks;
a drive train consisting of a ¼diameter pulley connected behind the oarlock with a cable running from it to a swivel pulley inside the main frame tube;
a second pulley in the drive train receiving the cable part way down the main frame tube towards the stern end, then passing out the other side repeating the way it came in;
the second pulley connected to a chain that continues towards stern end;
a chain crank that receives the above chain and returns it to a bungee cord that reciprocates the drive and recovery phase of the rowing stroke;
a second chain crank connected to the same axle as the first and located just outside the main frame and in line

with a cassette cluster connected to the hub of the stern wheel;

a set of rollers stern and bow, one in the bow and two at the stern, that the wheels roll on;

a frame for the rollers, separate from the main frame;

a hull radius swivel connected to the roller frame;

a base that has adjustable wheels, (for spread), that the hull swivel sits on;

a coupling device to connect the main frame and roller frame allowing the simultaneous swivel movement of main frame and roller frame and still allowing some stern to bow back and forth movement;

[c2] The stationary exercise rowing machine as described in claim 1, were the wheels spin as a result of the rowing stroke and the spinning motion of the wheels allows for the counter balance necessary to balance the machine while rowing.

[c3] The stationary exercise rowing machine as described in claim 1, were the rollers that the tires spin on have grooves that detain the tires from exiting the rollers.

[c4] The stationary exercise rowing machine as described in claim 1, were the $\frac{1}{4}$ size pulley allows for the pull of the cable to remain aplomb, or at a constant angle, to the main frame tube, maintaining even load through the en-

tire drive phase of the rowing stroke.

- [c5] The stationary exercise rowing machine as described in claim 1, were the coupling device used to connect the main frame to the roller frame is adjustable allowing it to be dampened, or locked to disallow main frame movement back and forth stern to bow on rollers.
- [c6] The stationary exercise rowing machine as described in claim 1, were the gears, in this case, a double chain ring on the crank and a 9 speed cluster, allow for the quick and easy changing of gears, making for a range of adjustment of load never before possible in any rowing shell or machine.
- [c7] The stationary exercise rowing machine as described in claim 1, were the 1/4 pulley device, figs. 13 and 14, is mounted on an axle, 38, that goes through the tube, 39, that secures the oar lock, 11, and is secured with a set of bearings that have set screws to allow the height adjustment of the 1/4 pulley device, (waterline).
- [c8] The stationary exercise rowing machine as described in claim 1, were all of the adjustment mechanisms, combine, creating a system were by the rower is confronted with, below, at, or beyond their talent capabilities for balance and technique and overall skills.

- [c9] What is claimed is, were the main frame and roller frame swivel together on the hull radius member, simulating the rotation of a racing shell hull as it is rowed in water.
- [c10] The hull swivel device as described in claim 9, were the hull swivel radius mechanism has protruding stop bars and adjusting rods to terminate the rotation of the swivel.
- [c11] The hull swivel device as described in claim 9, were the hull swivel radius mechanism has a dampening device to create resistance or stop the swivel motion.
- [c12] The hull swivel device as described in claim 9, were it sits on a set of rollers that cab be moved closer or further apart to effect the degree of difficulty of balancing the boat.
- [c13] What is claimed is, were the coupling device connecting the oar and the 1/4 pulley, (fig. 14 and 15),(ref. char. 32 and 34) allows for the smooth transition and fixing of the oar as pertaining to its horizontal plain during drive and recovery phase.
- [c14] The coupling device as described in claim 13, were the roller,34, allows for the up and down motion and centering of the oar in the drive phase.

[c15] The coupling device as described in claim 13, were the plate that the roller, described in dependent claim 14, rides against is curved, to center the oar when pressure is applied during drive phase.

[c16] The coupling device as described in claim 13, were the oar sleeve, 30, along with the friction sheath, 31, allow for the feathering of the blade (rotation of oar shaft in sleeve).